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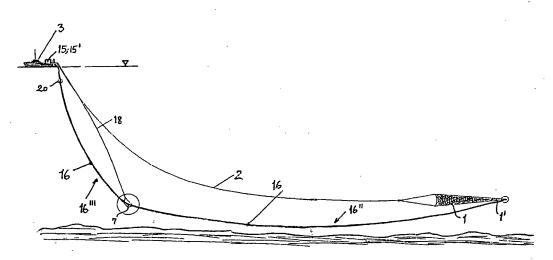
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(54) Title: TRAWL APPARATUS



(57) Abstract: A trawl apparatus (1) equipped with a means for gathering seafood/biomass and conveying it to a seafood/biomass receiving vessel (3). The trawl (1) is equipped with an elongate, preferably rigid or flexible collecting cage (5) which at an inlet opening (5') is connected to the rear end (1') of the trawl, and from the inlet opening extends into a second portion, defined by walls (9, 9'), roof (9'') and bottom (9''') which have openings for straining water, and is terminated in a downstream portion (5''; 5'''). A conveying hose - or pipe (4; 16, 16') for conveying seafood/biomass from the collecting cage (5) up to the vessel (3) opens into the downstream or aft portion (5"; 5") of the cage (5) via a funnel (13; 17). Air or other fluid is supplied from the vessel (3) via a supply hose (6; 19) for injection into the conveying hose - or the pipe (4; 16), in order, by injector effect, to cause suction of the seafood/biomass from the collecting cage (5) to the vessel (3). The apparatus is particularly suitable for continuous conveyance of seafood/biomass from the trawl to the vessel (3) during prolonged trawling.

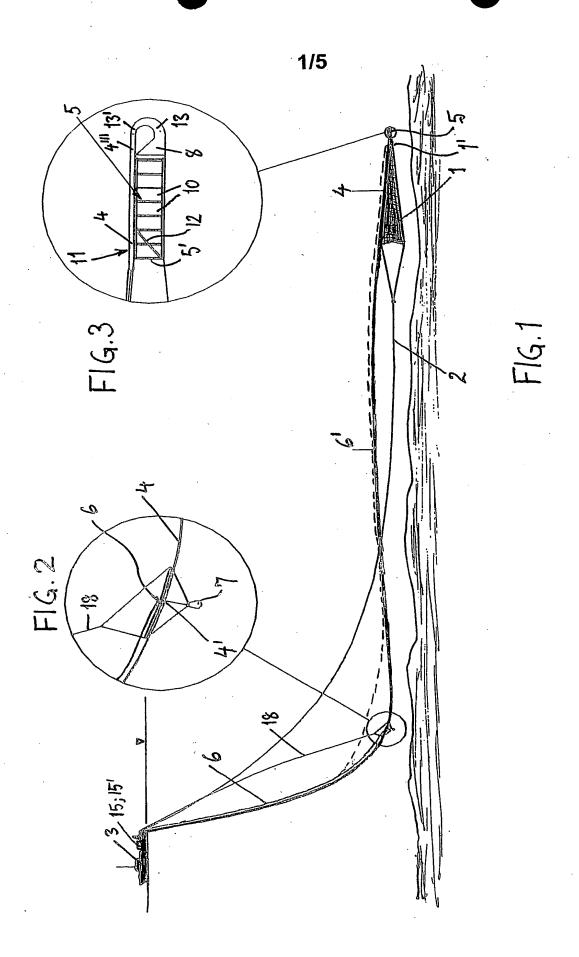
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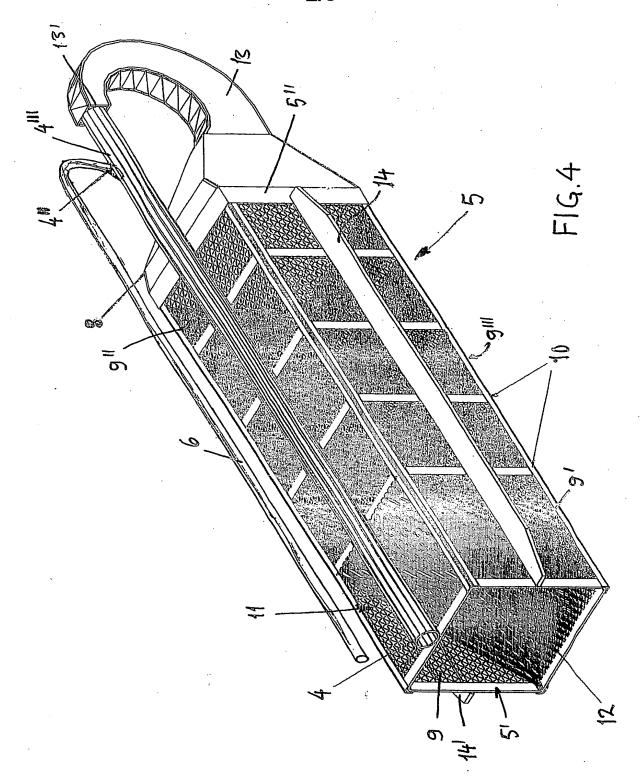
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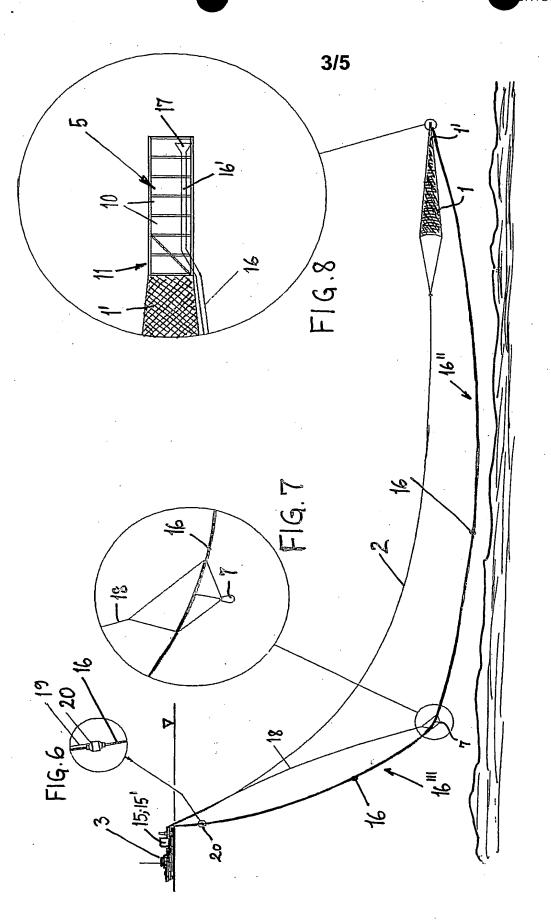


before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

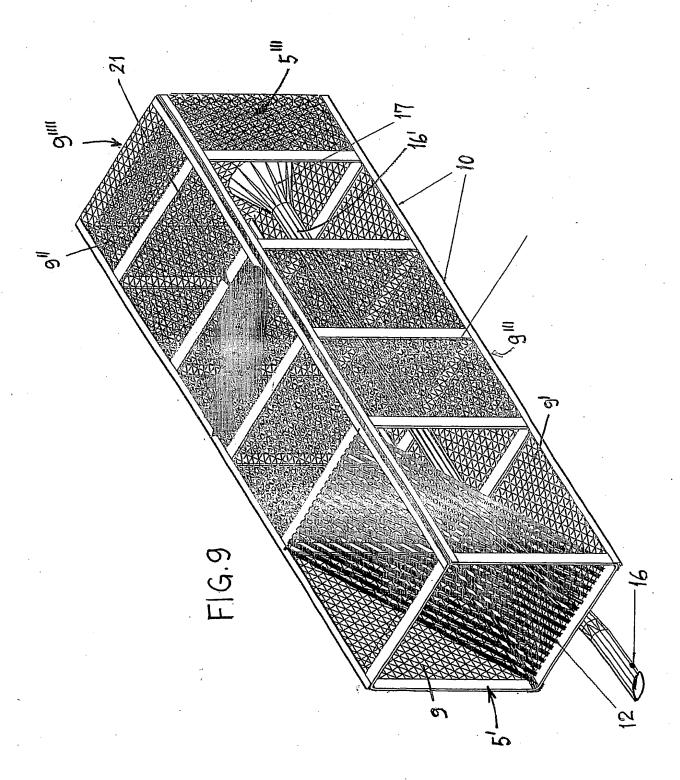
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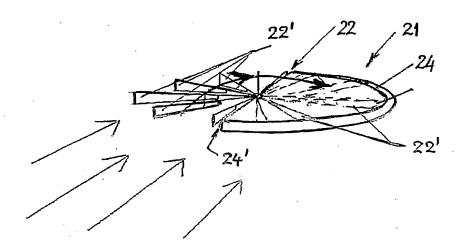


FIG. 10



Internati	application No.
PCT/NO-2	004/000215

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A01K 73/02
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched.

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 1447553 A (M R HUDSON), 6 March 1923 (06.03.1923), page 1, line 71 - page 2, line 37, figure 3	1-5,7,9-11
A	US 1388414 A (C P DROS), 23 August 1921 (23.08.1921), page 3, line 73 - line 111, figure 9	1
		
A	DD 289919 A5 (VEB FISCHFANG ROSTOCK), 16 May 1991 (16.05.1991), figure 1, abstract	1
		
A	NO 166512 B (SOLBJORN JACOBSEN), 29 April 1991 (29.04.1991), figure 2, abstract	1
		
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INTERNATIONAL SEARCH REPORT

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International application No.
PCT/Nc 04/000215

Category*	Citation of document, with indication, where	Relevant to claim N		
A	NO 313261 B1 (SVEIN ANDERSEN (09.09.2002), figure 6, a	ET AL), 9 Sept 2 abstract	2002	1
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	US	1447553	A	06/03/1923	NONE		ı
_	US	1388414	A	23/08/1921	US	1462196 A	17/07/1923
	DD	289919	A5	16/05/1991	NONE		
	NO	166512	В	29/04/1991	AU DE DK DK EP SE JP JP NO NO	553168 B 8086682 A 3267214 D 147061 B,C 435782 A 0073769 A,B 0073769 T3 3056694 B 58500233 T 820284 A 883754 A	03/07/1986 26/08/1982 00/00/0000 02/04/1984 01/10/1982 16/03/1983 29/08/1991 17/02/1983 05/08/1982 05/08/1982 19/08/1982
	NO	313261	B1	09/09/2002	NO	20010561 A	05/08/2002